United States Environmental Protection Agency Region 7 300 Minnesota Avenue Kansas City, KS 66101

Date: 04/24/2019

Subject: Transmittal of Sample Analysis Results for ASR #: 8209

Project ID: TJAAEEP4S

Project Description: Alt-En Ethanol Plant - NDEO ASR

From: Margaret E.W. St. Germain, Chief

MARGARET Laboratory Technology & Analysis Branch

Date: 2019.04.24 17:00:48 Laboratory Services and Applied Sciences Division ST. GERMAIN

Digitally signed by

MARGARET ST. GERMAIN

To: Tabatha Adkins **ENST/LTAB**

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. These results are based on samples as received at the Science and Technology Center. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our ENST records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Summary of Project Information

04/24/2019

Project Manager: Tabatha Adkins Org: ENST/LTAB Phone: 913-551-7128

Project ID: TJAAEEP4S QAPP Number: NDEQ

Project Desc: Alt-En Ethanol Plant - NDEQ ASR

Location: Mead State: Nebraska Program: Water Enforcement

Purpose: Site Characterization GPRA PRC: 000E50

This screening/characterization event is in response to recent complaints of odor and

other concerns.

Additional field contact is: Wade Gregson, NDEQ (402-601-1011).

Per NDEQ submitted ASR on 4/4/2019: This ASR is not part of a litigation hold at this

time.

ASR Number: 8209

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

Units: Specific units in which results are reported.

___ = Field Sample mg/L = Milligrams per Liter

% = Percent

ug/L = Micrograms per Liter mg/kg = Milligrams per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

J = The identification of the analyte is acceptable; the reported value is an estimate.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

U = The analyte was not detected at or above the reporting limit.

ASR Number: 8209

Sample Information Summary

04/24/2019

Project ID: TJAAEEP4S

Project Desc: Alt-En Ethanol Plant - NDEQ ASR

Sample No		Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -		Solid	Wet cake sample		04/08/2019	11:00			04/09/2019
2 -	*****	Water	West Lagoon water sample		04/08/2019	12:35			04/09/2019
3 -		Water	Overflow Lagoon water sample		04/08/2019	13:30			04/09/2019
4 -		Solid	Seed corn sample		04/08/2019	13:30			04/09/2019

RLAB Approved Analysis Comments

04/24/2019

Project ID: TJAAEEP4S

Project Desc Alt-En Ethanol Plant - NDEQ ASR

Analysis Comments About Results For This Analysis

1	Mercury in Soil or Sediment
	Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23E

Basis: Dry

Samples: 1-__ 4-__

Comments:

(N/A)

1 Metals in Solids by ICP-AES

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3122.3G

Basis: Dry

Samples: 1-___ 4-___

Comments:

Barium was J-coded in sample 1. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.

1 Percent Solid

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3142.9H

Basis: N/A

Samples: 1-___ 4-___

Comments:

(N/A)

1 TCLP Mercury in Soil

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23E applied to TCLP extracts

Basis: N/A

Samples: 1-___ 4-__

Comments:

1 TCLP Metals in Soil

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3122.3G TCLP

ASR Number: 8209

RLAB Approved Analysis Comments

04/24/2019

Project ID: TJAAEEP4S

Project Desc Alt-En Ethanol Plant - NDEQ ASR

Analysis		Comments About Results For This Analysis							
		Basis: N/A Samples: 1 4 Comments:							
1	Merc	ury in Water							
		Lab: Region 7 EPA Laboratory - Kansas City, Ks.							
		Method: EPA Region 7 RLAB Method 3121.23E							
		Samples: 2 3							
		Comments: (N/A)							
1	Meta	Is in Water by ICP-AES							
		Lab: Region 7 EPA Laboratory - Kansas City, Ks.							
		Method: EPA Region 7 RLAB Method 3122.3G							
		Samples: 2 3							
		Comments: Aluminum was J-coded in sample 2. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be lower than the reported value.							
		Nickel was J-coded in sample 2. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.							
		Antimony, Cadmium, Lead, Molybdenum, Selenium, Silver, Thallium, Titanium was each UJ-coded in sample 2. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.							
1	TCLP	Mercury in Water							

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23E applied to TCLP extracts

Samples: 2-__ 3-__

Comments:

1 TCLP Metals in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

RLAB Approved Analysis Comments

Project ID: TJAAEEP4S Project Desc Alt-En Ethanol Plant - NDEQ ASR

Analysis Comments About Results For This Analysis

Method: EPA Region 7 RLAB Method 3122.3G TCLP

Samples: 2-___ 3-___

Comments:

ASR Number: 8209

Lead was UJ-coded in sample 2. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

04/24/2019

ASR Number: 8209

RLAB Approved Sample Analysis Results

04/24/2019

Project ID: TJAAEEP4S Pro

Project Desc: Alt-En Ethanol Plant - NDEQ ASR

Mercury in Soil or Sediment Mercury mg/kg 0.0112 0.00179 1 Metals in Solids by ICP-AES 7.5 Aluminum mg/kg 2420 7.5 Antimony mg/kg 1.9 U 2.0 U Arsenic mg/kg 4.8 U 5.0 U Barium mg/kg 4.8 U 5.0 U Beryllium mg/kg 1.0 U 1.0 U Cadmium mg/kg 1.0 U 1.0 U Calcium mg/kg 1.0 U 1.0 U Calcium mg/kg 3.4 2.0 U Chromium mg/kg 3.4 2.0 U Cobalt mg/kg 1.7 1.0 U Cobalt mg/kg 1.6 2.4 Iron mg/kg 1.6 2.4 Iron mg/kg 4.8 U 5.0 U Magnesium mg/kg 4.8 U 5.0 U Magnesium mg/kg 1.9 U 2.0 U Molybdenum mg/kg 1.9 U 2.0 U <t< th=""></t<>
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Solids, percent % 39.2 89.8 1 TCLP Mercury in Soil
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Cadmium mg/L 0.010 0.005 U
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Chromium mg/L 0.078 0.015 U
Lead mg/L 0.050 U 0.050 U
Selenium mg/L 0.066 0.050 U
Silver mg/L 0.025 U 0.025 U
1 Mercury in Water
Mercury ug/L 0.250 U 0.250 U
1 Metals in Water by ICP-AES
Aluminum ug/L 1580 J 60200
Antimony ug/L 50 UJ 50 U
Arsenic ug/L 25 U 25 U
Barium ug/L 164 727
Beryllium ug/L 3 U 3 U

Page 7 of 8

RLAB Approved Sample Analysis Results

04/24/2019

Project ID: TJAAEEP4S

Project Desc: Alt-En Ethanol Plant - NDEQ ASR

Analysis/ Analyte	Units	1	2. ea	3	4
Cadmium	ug/L		3 UJ	3 U	
Calcium	mg/L		97.6	616	
Chromium	ug/L		37	96	
Cobalt	ug/L		10 U	18	
Copper	ug/L		77	1660	
Iron	ug/L		6640	67700	
Lead	ug/L		50 UJ	97.2	
Magnesium	mg/L		246	150	
Manganese	ug/L		1130	2080	
Molybdenum	ug/L		15 UJ	24	
Nickel	ug/L		39 J	130	
Potassium	mg/L		848	320	
Selenium	ug/L		50 UJ	111	
Silver	ug/L		25 UJ	25 U	
Sodium	mg/L		414	256	
Thallium	ug/L		50 UJ	50 U	
Titanium	ug/L		20 UJ	105	
Vanadium	ug/L		10 U	127	
Zinc	ug/L		3060	14900	
1 TCLP Mercury in Water					
Mercury	mg/L		0.000250 U	0.000530	
1 TCLP Metals in Water					
Arsenic	mg/L		0.050 U	0.050 ∪	
Barium	mg/L		0.122	0.070	
Cadmium	mg/L		0.005 U	0.005 U	
Chromium	mg/L		0.091	0.087	
Lead	mg/L		0.050 UJ	0.050 U	
Selenium	mg/L		0.050 U	0.050 U	
Silver	mg/L		0.025 U	0.025 U	

CHAIN OF CUSTODY RECORD 200 SENVIRONMENTAL PROTECTION AGENCY REGION VII SITE OR SAMPLING EVENT PA PROJECT MANAGER (Print) DATE OF SAMPLE COLLECTIONS) SHEET Alt-En Ethanel Plant ۵ž CONTENTS OF SHIPMENT TYPE OF CONTAINERS SAMPLED MEDIA RECEIVING LABORATORY ASR AND VOA SET (3 VIALS EA) ILPLASTIC BOTTLE IL<u>Gl</u>ass HAZ WASTE REMARKS OTHER INFORMATION SAMPLE BOTTLE BOTTLE (condition of samples upon receipt, G iss HUMBER(S) OF CONTAINERS PER SAMPLE NUMBER other sample numbers, etc.) 2 Χ CSCC conents RACIONS 8000 2000 2 MODE OF SHIPMENT **DESCRIPTION OF SHIPMENT** CONTAINER(S) CONSISTING OF _____ CRATE(S) COMMERCIAL CARRIER SAMPLER CONVEYED ICE CHEST(S): OTHER (SHIPPING AIRBILL NUMBER) PERSONNEL CUSTODY RECORD DATE TIME REASON FOR CHANGE OF CUSTODY RELINQUISHEP BY (PM/SAMPLER) nare TIME RECEIVED BY 4/8/19/1530 KON SEALED UNSEALED UNSEALED A RECEIVED BY REASON FOR CHANGE OF CUSTODY MISAMPLER) DATE TIME DATE TIME Must 4/9/ Minda Analy A) UNSEALEO REASON FOR SHANGE OF CUSTODY ALCEIVED BY RELINQUISHED BY (PWSAMPLER) DATE 778885 SEALED _ SEALEO UNSEALED UNSEALED RELINQUISHED BY (PMSAMPLES) RECEIVED BY DATE TIME REASON FOR CHANGE OF CUSTODY DATE Page 9 of 13 SEALED UNSEALED / - SEALED UNSEALED WHITE ORXINAL - EPA LAB . YELLOW - EPA PROJECT MANAGER

7-EPA-9252 (REV 4/17)

ASR Number:	8209	Sample Number	* 1	QC Co	de: Matr	ix: Solid	Tag ID: 8	3209-1
Project ID:		EP4S Ethanol Plant - NC	ንድብ ልፍ፣		oject Manager:	Tabatha /	Adkins	
, City:	Mead	Enforcement	zew nui		State:	Nebraska		
Location Desc:	Wet c	ake sample			200000000000000000000000000000000000000			METERALAMA ALAMADONA ALAMADA METERALAMA ALAMADA METERALAMA ALAMADA ALAMADA METERALAMA ALAMADA METERALAMA ALAMA
Storet ID:			Extern	ıal Samı	ole Number: _			
Expected Conc	t 8 v 8	(or Circle One	: Low	Medium	High)	Date	Ti	me(24 hr)
Latitude:			Sam	iple Coll	ection: Start:	04/08/2	019 1	1:00
Longitude:	***************************************				End:		rigge andre	·
Laboratory Ar	nalyses	* X d d e	CONTRACTOR OF THE PROPERTY OF	***************************************			XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	***************************************
Container	p	reservative	Holdir	ng Time	Analysis			
1 - 8 oz glass	4	Deg C	28	Days	 Mercury in Soi 	l or Sedimen	t	
1 - 8 oz glass	4	Deg C	180	Days	1 Metals in Solid	s by ICP-AES	ŝ	
1 - 8 oz glass	4	Deg C	180	Days	1 TCLP Metals in	Soil		
1 - 8 oz glass	N	ione	28	Days	1 TCLP Mercury	in Soil		
0 -	4	Deg C	0	Days	1 Percent Solid			

Sample Comments:

(N/A)

ASR Number:	8209	Sample Number:	2	QC Co	de: Matı	ix: Water Ta	g ID: 8209-2		
Project ID: Project Desc:		EP4S Ethanol Plant - NDE	EO ASR		oject Manager:	: Tabatha Adki	ns		
City:	Mead	Enforcement	a tour c	State: Nebraska					
Location Desc	: West	Lagoon water samp	le		٠				
Storet ID:	5		Extern	al Samı	ole Number:				
Expected Cond	50 X	(or Circle One:	Low	Medium	High)	Date	Time(24 hr)		
Latitude:		DODDOODO BARRELALES.	Sam	ple Coll	ection: Start:	04/08/2019	12:35		
Longitude	8				End:	/	·		
Laboratory A	nalyses	y g ∤ x	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000			
Container	p	reservative	Holdin	g Time	Analysis				
1 - 1 Liter plastic bottle		mL of HNO3/L to pH<2	28	Days	1 Mercury in Wa	iter			
1 - 1 Liter plastic be	ottle H	INO3 acidify, 4 Deg C	180	Days	1 Metals in Wat	er by ICP-AES			
1 - 1 Liter plastic bottle		fone	28	Days	1 TCLP Mercury	in Water			
1 - 8 oz glass	4	Deg C	180	Days	1 TCLP Metals in	n Water			

Sample Comments:

(N/A)

ASR Number: 82	09 Sample Number:	3 <	SC Coq	e: Matr	ix: Water Tag	ID: 8209-3
Project ID: TI Project Desc: Al	JAAEEP4S It-En Ethanol Plant - NDE	EO ASR	Proj	ect Manager:	Tabatha Adkins	
City: M		•		State:	Nebraska	
Program: W	ater Enforcement					
Location Desc: (Overflow Lagoon water sa	ample				
Storet ID:		External	Samp	le Number: _		
Expected Conc:	(or Circle One:	Low M	edium	High)	Date	Time(24 hr)
Latitude: _		Sampl	e Colle	ction: Start:	04/08/2019	13:30
Longitude: _				End:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Laboratory Anal	yses:			NVKKN0000000000000000000000000000000000	***************************************	***************************************
Container	Preservative	Holding 1	Time	Analysis		
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28	Days	1 Mercury in Wa	ter	
1 - 1 Liter plastic bottle	HNO3 acidify, 4 Deg C	180	Days	1 Metals in Wate	r by ICP-AES	
1 - 1 Liter plastic bottle	None	28	Days	1 TCLP Mercury	in Water	
1 - 8 oz glass	4 Deg C	180	Days	1 TCLP Metals in	Water	
Camala Camman	& ес к	***************************************	000000000000000000000000000000000000000	000000000000000000000000000000000000000	***************************************	Managanananananananananananananan-an-an-an-an

Sample Comments:

(N/A)

ASR Number:	8209	Sample Number:	4	QC Co	de: Matr	ix: Solid	Tag ID: 8209-4	
Project ID:		EP4S Ethanol Plant - NDI	=0 ASI		oject Manager:	Tabatha	Adkins	6000000000
City:		EFCAMING COURT 16FA	- 12 1 (w)		State:	Nebraska	i.	
-		Enforcement						
Location Desc:	Seed	corn sample		000000000000000000000000000000000000000		oocooooonaandanaangoodaantantahtattiintata		
Storet ID:			Exteri	ıal Samı	ple Number: _			
Expected Conc	ध ड	(or Circle One:	Low	Medium	High)	Date	Time(24 h	r)
Latitude:			San	ple Coll	ection: Start:	04/08/2	019 13:30	
Longitude:	198 6molechelonia son				End:	//_	P	
Laboratory Ar	ialyses	» a 9 x				00000000000000000000000000000000000000		haddahada
Container		reservative?	Holdii	ng Time	Analysis			
1 - 8 oz glass	4	Deg C	28	3 Days	1 Mercury in Soi	il or Sedimen	t	
1 - 8 oz glass	4	Deg C	180) Days	1 Metals in Solid	is by ICP-AES	3	
1 - 8 oz glass	4	∤Deg C	180) Days	1 TCLP Metals in	ı Soil		
1 - 8 oz glass	P	lone	28	B Days	1 TCLP Mercury	in Soil		
0 -	4	Deg C	C) Days	1 Percent Solid			

Sample Comments:

(N/A)